

U.S. Patent Application No. 09/905,156
Amendment dated September 24, 2003
Reply to Office Action of March 24, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-3 (canceled)

Claim 4 (previously amended): The polyurethane of claim 26, wherein said hydroxyalkanoate is 3 hydroxybutyric acid combined with ethylene glycol, 1, 3 propane diol, 1,2 propane diol, 1,3 butane diol, 1, 4 butane diol, or combinations thereof.

Claim 5 (previously amended): The polyurethane of claim 26, wherein said hydroxyalkanoate is 3 hydroxybutyric acid combined with polyethylene glycol having from about 1 to about 100 ethylene glycol repeat units.

Claim 6 (previously amended): The polyurethane of claim 26, wherein said hydroxyalkanoate is a mixture of 3 hydroxybutyric acid and 3 hydroxyvaleric acid combined with ethylene glycol, 1, 3 propane diol, 1,2 propane diol, 1,3 butane diol, 1, 4 butane diol, or combinations thereof.

Claim 7 (previously amended): The polyurethane of claim 26, wherein said hydroxyalkanoate is a mixture of 3 hydroxybutyric acid and 3 hydroxyvaleric acid combined with polyethylene glycol having from about 1 to about 100 ethylene glycol repeat units.

Claim 8 (previously amended): The polyurethane of claim 26, wherein said isocyanate containing material is toluene diisocyanate, methylene 4, 4' diphenyl diisocyanate, isophorone diisocyanate, hexamethylene diisocyanate, a combinations thereof.

Claim 9 (previously amended): The polyurethane of claim 26, wherein the weight ratio of isocyanate groups to hydroxy groups is from 0.5:1 to 2:1.

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Claim 10 (previously amended): The polyurethane of claim 26, wherein the polyurethane is biodegradable.

Claim 11 (previously amended): The polyurethane of claim 26, wherein the polyurethane is hydrophilic.

Claim 12 (previously amended): The polyurethane of claim 26, wherein the polyurethane is hydrophobic.

Claim 13 (previously amended): The polyurethane of claim 26, wherein the polyurethane is a coating.

Claim 14 (previously amended): The polyurethane of claim 26, wherein the polyurethane is a flexible foam.

Claim 15 (previously amended): The polyurethane of claim 26, wherein the polyurethane is a rigid foam.

Claim 16 (previously amended): The polyurethane of claim 26, wherein the polyurethane is an elastomer.

Claim 17 (previously amended): The polyurethane of claim 26, wherein the polyurethane is water dispersible.

Claim 18 (previously amended): The polyurethane of claim 26, wherein the hydroxyalkanoate is a polymer of one or more subunits having the chemical formula:



wherein n is 0 or an integer, and wherein R¹, R², R³, and R⁴, which are the same or different, is selected from saturated and unsaturated hydrocarbon radicals; halo- and hydroxy-substituted radicals; hydroxy radicals; halogen radicals; nitrogen-substituted radicals; oxygen-substituted radicals; or hydrogen atoms.

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Claim 19 (previously amended): The polyurethane of claim 26, wherein said hydroxyalkanoate is a polymer.

Claim 20 (original): The polyurethane of claim 19, wherein said polymer is a homopolymer or copolymer.

Claim 21 (original): The polyurethane of claim 19, wherein said polymer is a copolymer of 3-hydroxybutyric acid and 4-hydroxybutyric acid.

Claim 22 (original): The polyurethane of claim 19, wherein said hydroxyalkanoate is a polymer of 3 hydroxybutyric acid and 3 hydroxyhexanoic acid, or a polymer of 3 hydroxybutyric acid and 3 hydroxyoctanoic acid.

Claim 23 (original): The polyurethane of claim 19, wherein said hydroxyalkanoate is a polymer of 1,3 hydroxy butyric acid ; 1,4 hydroxy butyric acid, or both.

Claim 24 (currently amended): A method of making a the polyurethane of claim 26, comprising reacting at least one product containing at least one two isocyanate groups containing material per molecule and a at least one compound having at least two hydroxyl groups having different reactivity to the at least two isocyanate groups hydrogen atoms capable of reacting with the at least one isocyanate, wherein said at least one compound optionally contains, as part of the compound, a thermally decomposable or a biodegradable hydroxyalkanoate component.

Claim 25 (currently amended): The method of claim 23 24, wherein said compound having at least two hydrogen atoms is primarily a mono ester.

Claim 26 (currently amended): A polyurethane obtained by the reaction of at least one product containing at least two isocyanate groups per molecule and at least one compound having at least two hydroxyl groups having different reactivity to the at least two isocyanate

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groups, wherein the at least one compound optionally includes a thermally decomposable or biodegradable hydroxyalkanoate component.

Claim 27 (canceled).

Claim 28 (canceled).

Claim 29 (canceled).

Claim 30 (canceled).

Claim 31 (canceled).

Claim 32 (canceled).

Claim 33 (canceled).

Claim 34 (canceled).

Claim 35 (canceled).

Claim 36 (canceled).

Claim 37 (new): The polyurethane of claim 26, wherein at least one compound includes a thermally decomposable or biodegradable hydroxyalkanoate component.

Claim 38 (new): The method of claim 24, wherein at least one compound includes a thermally decomposable or biodegradable hydroxyalkanoate component.